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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/561,151	09/25/2006	Keijo J. Kinnari	2009_1799	9109
WENDEROTH, LIND & PONACK, L.L.P. 1030 15th Street, N.W., Suite 400 East Washington, DC 20005-1503			EXAMINER	
			PAIK, SANG YEOP	
			ART UNIT	PAPER NUMBER
_			3742	
			NOTIFICATION DATE	DELIVERY MODE
			04/30/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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	Application No.	Applicant(s)
	10/561,151	KINNARI ET AL.
Office Action Summary	Examiner	Art Unit
	SANG Y. PAIK	3742
The MAILING DATE of this communication ap Period for Reply	pears on the cover sheet with the o	correspondence address
A SHORTENED STATUTORY PERIOD FOR REPL WHICHEVER IS LONGER, FROM THE MAILING D. - Extensions of time may be available under the provisions of 37 CFR 1. after SIX (6) MONTHS from the mailing date of this communication. - If NO period for reply is specified above, the maximum statutory period. - Failure to reply within the set or extended period for reply will, by statut Any reply received by the Office later than three months after the mailir earned patent term adjustment. See 37 CFR 1.704(b).	DATE OF THIS COMMUNICATION 136(a). In no event, however, may a reply be tir will apply and will expire SIX (6) MONTHS from e, cause the application to become ABANDONE	N. nely filed the mailing date of this communication. ED (35 U.S.C. § 133).
Status		
1) ☐ Responsive to communication(s) filed on 18 M 2a) ☐ This action is FINAL . 2b) ☐ This 3) ☐ Since this application is in condition for allowated closed in accordance with the practice under	s action is non-final. ance except for formal matters, pro	
Disposition of Claims		
4) ☐ Claim(s) 2.5,8-12 and 14 is/are pending in the 4a) Of the above claim(s) is/are withdra 5) ☐ Claim(s) is/are allowed. 6) ☐ Claim(s) 2.5,8-12 and 14 is/are rejected. 7) ☐ Claim(s) is/are objected to. 8) ☐ Claim(s) are subject to restriction and/o	awn from consideration.	
9) The specification is objected to by the Examina 10) The drawing(s) filed on is/are: a) accomposed as a composition and a composition and a composition to the separatement drawing sheet(s) including the correct and the correct an	cepted or b) objected to by the drawing(s) be held in abeyance. Section is required if the drawing(s) is ob	e 37 CFR 1.85(a). jected to. See 37 CFR 1.121(d).
Priority under 35 U.S.C. § 119		
12) Acknowledgment is made of a claim for foreign a) All b) Some * c) None of: 1. Certified copies of the priority document 2. Certified copies of the priority document 3. Copies of the certified copies of the priority document application from the International Bureat* * See the attached detailed Office action for a list.	nts have been received. Its have been received in Applicat Pority documents have been receive Bu (PCT Rule 17.2(a)).	ion No ed in this National Stage
Attachment(s) 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date	4) Interview Summary Paper No(s)/Mail D 5) Notice of Informal F 6) Other:	ate

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DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 2. Claims 2, 5, 8-11 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holen (US 2002/00287070) in view of view Firmin (US 2004/0253734) or Agee et al (US 2003/0178195).

Holen shows the method and the system claimed including a direct electric heating of a subsea pipeline with an electrical current source, a support device supporting the current source, a first and second electrical connections in contact with the pipeline, and a riser cable having a first and a second electrical conductor for conducting electrical current to the first and second electrical connections, in which the current source provides the current sufficient to cause heating of the pipeline to a desired temperature. But, Holen does not explicitly show its heating temperature that is above the melting point of ice but below the melting point of hydrate, and subsequently applying a second plug-counteracting procedure to remove hydrate plug or ice.

Firmin shows that it is known in the art to use means of chemical injection as well as the pressurization system to remove a hydrate plug, and Agee also shows a known means of depressurization to remove a hydrate plug or ice.

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In view of Firmin or Agee, it would have been obvious to one of ordinary skill in the art to adapt Holen with a procedure the combination of, or in sequence of, heating and application of the chemical injection or depressurization to enhance the removing of a hydrate plug or ice in the pipeline to facilitate a more effective flow in the pipeline.

With respect to the recited temperature, Holen shows varying degrees of current and voltage levels, and it would have been obvious to set the temperature at the recited range or any other suitable range that depends on the intended applications, including the temperature above the melting point above the ice for its only removal but below the melting point of hydrate as a matter of routine experimentations.

3. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Holen in view of Firmin or Agee as applied to claims 2, 5, 8-11 and 14 above, and further in view of Ness et al (US 6,328,583).

Holen in view of Firmin or Agee shows the system claimed except for the support device being a vessel.

Ness shows a support device being a vessel from which an electrical cable is provided therefrom.

In view of Ness, it would have been obvious to one of ordinary skill in the art to adapt Holen, as modified by Holen in view of Firmin or Agee with its support device as that of a vessel, as an alternative means, to provide for a mobile support device that can transport its riser cable to different pipeline locations.

Response to Arguments

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4. Applicant's arguments filed 3/18/10 have been fully considered but they are not persuasive.

The applicant argues that the present invention could still be used with completely "bare" pipe as distinguished from Holen which is in a good thermal insulation. This argument is not deemed persuasive since there is no claimed recitation of a bare pipe that is distinguishes the claimed pipe from that of Holen. The applicant argues that Holen does not describe the possibility of ice plug formation within the pipelines, but it is noted that Holen is also concerned about having a stoppage due to hydrate plugs or wax deposit in the pipe line (see page 1, para [0014]).

The applicant argues that there is no explicit reasoning or rationale for the combination of the prior art. This argument is not deem persuasive since Holen, as well as the applied art, including Firmin and Agee are in the same field of art or endeavor which is in the field of transporting oil or gas in the subformation or subterranean wherein the applied prior art is concerned about providing an efficient transportation of the oil or gas without blockage due to the formation of deposits, which would include hydrates, wax or ice, in the transporting pipes. Since they are analogous art and are reasonably pertinent to the particular problem with which the applicant was concerned, the motivation to combine the prior art to enhance the enhance the removing of a hydrate plug or ice in the pipeline to facilitate a more effective flow in the pipeline is an explicit rationale for supporting a prima facie case of obviousness.

The melting of the only the ice plug is rejected as being a matter of routine experimentation since Holen shows it is known to vary the degrees of the current and

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voltage level which selects a desired heating temperature, and it would have been obvious to one of ordinary skill in the art to provide the melting of the only the ice with a varied control of the current and the voltage source of Holen when desired.

Thus, the applicant's arguments are not deemed persuasive.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to SANG Y. PAIK whose telephone number is (571) 272-4783. The examiner can normally be reached on M-F (9:00-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tu Hoang can be reached on (571) 272-4780. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/SANG Y PAIK/

Primary Examiner, Art Unit 3742